



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,630	09/05/2003	David J. Parins	1001.1674101	8129
28075	7590	11/01/2007		
CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420			EXAMINER HOEKSTRA, JEFFREY GERBEN	
			ART UNIT 3736	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

SP

<b>Office Action Summary</b>	Application No. 10/656,630	Applicant(s) PARINS, DAVID J.	
	Examiner Jeffrey G. Hoekstra	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 34-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Notice of Amendment***

1. In response to the amendment filed on 09/04/2007, amended claim(s) 1, 6, 9, 14, 17, 22, 25, and 30 and withdrawn claim(s) 34-46 is/are acknowledged. The current rejections of the claim(s) 1-33 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

### ***Claim Objections***

2. Claim 26 is objected to because of the following informalities: the positive recitation of "a plurality of discrete affixation points" in lines 1-2 appears to duplicate the "a plurality of discrete affixation points" structure of claim 25 and may render the claim indefinite. The Examiner notes Applicant may have intended to positively recite "the plurality of discrete affixation points". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golds (US 6,312,458 B1) in view of Richardson et al (US 2001/0009980 A1, hereinafter Richardson).

5. For claims 1, 9, 17, and 25, Golds teaches an intracorporal medical device (5 and 17), comprising:

Art Unit: 3736

- an elongate shaft (12 and 18) having a proximal end (the right side of the shaft along the longitudinal axis 22 in Figures 3 and 4) and an opposing distal end (the left side of the shaft along the longitudinal axis 22 in Figures 3 and 4);
- a helically wound coil (2, 3, and 14) having a plurality of windings (4 and 15) forming a coil length (along directions 24, 26, and/or 28 as best seen in Figures 3-5) disposed about a portion of the distal end (as best seen in Figures 3 and 4);
- a thermoplastic (column 6 lines 1-9) polymer sleeve (20) circumferentially disposed about a portion of the coil length (as best seen in Figures 3 and 4); and
- a plurality of discrete affixation points (column 6 lines 25-52 and element 30) disposed along the coil length, wherein each discrete affixation point fixes the thermoplastic polymer sleeve to two or more coil windings (column 6 lines 9-67 and at least claims 6 and 16), wherein each discrete affixation point is separated from other discrete affixation points by areas where the polymer sleeve is not affixed to the coil (column 6 lines 9-67 and at least claims 6 and 16).

6. For claims 2, 10, 18, and 26, Golds teaches an intracorporal medical device (5 and 17), wherein the plurality of discrete affixation points includes 10 discrete affixation points disposed along the coil length (column 6 lines 9-67, at least claims 6 and 16, and Figures 3-5).

7. For claims 3, 5, 11, 13, 19, 21, 27, and 29, Golds teaches an intracorporal medical device (5 and 17), wherein the plurality of discrete affixation points forms a non-uniform and/or uniform pattern along the coil length (column 6 lines 9-67 and at least claims 6 and 16).

Art Unit: 3736

8. For claims 6, 14, 22, and 30, Golds teaches an intracorporal medical device (5 and 17), wherein the discrete affixation point fixes 3 to 10 coil windings to the thermoplastic sleeve (column 6 lines 9-67, at least claims 6 and 16, and Figures 3-5).

9. For claims 7, 15, 23, and 31, Golds teaches an intracorporal medical device (5 and 17), wherein each discrete affixation point is a discrete element aligned orthogonal to the windings (as best seen in Figures 5 and 6).

10. For claims 8, 16, 24, and 32, Golds teaches an intracorporal medical device (5 and 17), wherein each discrete affixation point is an element capable of having a width of 0.1 to 0.5 mm and a length of 0.1 to 0.3 mm (column 5 lines 59-67).

11. Thus, for claims 1-3, 5, 6, 8-11, 13, 14, 16-19, 21, 22, 24-27, 29, 30, and 32, Golds teaches the claimed invention, including a thermoplastic polymer sleeve circumferentially disposed about a portion of the coil length, except for expressly teaching a thermoplastic polymer tube circumferentially disposed about a portion of the coil length. Richardson teaches an intracorporal medical device (10,30) including a thermoplastic polymer tube (26,46) (paragraphs 10, 11, 22, 26, and 27) circumferentially disposed about a portion of a helically wound coil length (22) (as best seen in Figures 1 and 4), the coil having a plurality of windings (as best seen in Figures 1 and 4), and the thermoplastic polymer tube affixed to the coil (paragraph 26). The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Because both Golds and Richardson teach intracorporal medical device with thermoplastic elements affixed to a portion of a length of a helical coil, it would have

Art Unit: 3736

been obvious to one skilled in the art at the time of the invention to substitute one affixed thermoplastic element for the other to achieve the predictable results of configuring the torque transmission, pushability, and flexibility of an intracorporal medical device for navigating tortuous vasculature.

12. For claims 4, 7, 12, 15, 20, 23, 28, 31, and 33, Golds in view of Richardson teaches the claimed invention but does not expressly disclose the plurality of discrete affixation points having a density of discrete affixation points per unit length that decreases from the proximal end to the distal end. It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the plurality of discrete affixation points along the length of an intracorporal medical device as taught by Golds in view of Richardson with a density of discrete affixation points per unit length that decreases from the proximal end to the distal end, because Applicant has not disclosed that a density of discrete affixation points per unit length that decreases from the proximal end to the distal end provides an advantage, is used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the plurality of discrete affixation points along the length of an intracorporal medical device as taught by Golds in view of Richardson, because it provides a means for configuring the flexibility along a longitudinal direction of the intracorporal medical device (column 3 lines 1-5 and column 6 lines 19-24) and since it appears to be an arbitrary design consideration which fails to patentably distinguish over Golds in view of Richardson. Therefore, it would have been

an obvious matter of design choice to modify Golds in view of Richardson to obtain the invention as specified in the claim(s).

***Response to Arguments***

13. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571) 272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

Art Unit: 3736

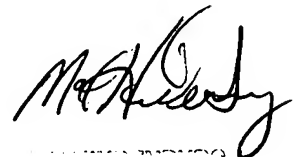
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.H./

Jeff Hoekstra

Examiner, Art Unit 3736



JEFF HOEKSTRA  
EXAMINER  
ART UNIT 3736